

Severe acute respiratory syndrome

Patients were epidemiologically linked

EDITOR—Severe acute respiratory syndrome (SARS) is a new disease that caught the medical profession in Hong Kong unawares. The causative agent, identified as a new coronavirus, is transmitted by droplets and direct contact.^{1,2} Healthcare workers are at high risk, accounting for about one quarter of all cases of SARS in Hong Kong.³ We here describe the spread of this highly infectious disease between 22 February and 8 March 2003 among the staff in four regional hospitals (A to D) in Hong Kong after admission

of the first patient with SARS. These patients were linked epidemiologically.

All hospitals implemented infection control policies for “droplets precaution” and direct admission of probable and suspected cases of SARS to isolation wards within one week. Hospital B closed the isolation wards to visitors on 12 March and other hospitals on 26 or 27 March. The figure shows the timing of implementation of various policies and the numbers of infected hospital staff and patients with SARS admitted to each hospital until 12 April.



Numbers of infected hospital staff and patients with SARS admitted daily to each hospital from 22 February to 12 April 2003. *Admission of first index case. 1=implementation of infection control policy for “droplet precautions”; 2=establishment of isolation wards and direct admission of patients with probable and suspected SARS to separate isolation wards; 3=closure of isolation wards to all visitors

We observed five things.

- Admission of the first patient with SARS to a general medical ward (hospital D) together with administration of bronchodilator using a jet nebuliser was associated with infection of a large number of staff, patients, and visitors.
- Direct admission of index patients to intensive care with isolation resulted in very few or no infected hospital staff (hospitals A and C).
- Admission of a large number of patients with SARS in a short period overwhelmed the capacity of hospital C and resulted in infection of staff.
- Early and strict policy of direct admission of patients with probable and suspected SARS to designated wards and fewer admissions for SARS were associated with no staff infection in hospital B.
- Late closure of isolation wards led to infection of visitors and spread of the disease to the community.

Maira Chan-Yeung professor of respiratory medicine
 Department of Medicine, University of Hong Kong,
 Hong Kong Special Administrative Region, China
 mmwchan@hkucc.hku.hk

Wing Hong Seto consultant microbiologist
 Department of Microbiology, Queen Mary Hospital

Joseph J Y Sung professor
 Department of Medicine and Therapeutics,
 Chinese University of Hong Kong

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The following are also coauthors: Thomas S T Lai, consultant physician, Kwong Wah Hospital; Wilson K S Yee, consultant physician, and Loretta Yam, consultant physician, both of Pamela Youde Nethersole Eastern Hospital; and Kenneth W Tsang, associate professor of medicine, Mary S Ip, professor of respiratory medicine, Wah Kit Lam, professor of respiratory medicine, and Kar Neng Lai, professor of nephrology, all of the Department of Medicine, University of Hong Kong.

1 Peiris JSM, Lai ST, Poon LLM, Guan Y, Yam LYC, Lim W, et al. Coronavirus as a possible cause of severe acute respiratory syndrome. *Lancet* 2003;361:1319. Published ahead of print on 8 April (www.thelancet.com).

2 Drosten C, Günther S, Preiser W, van der Werf S, Brodt HR, Becker S, et al. Identification of a novel coronavirus in patients with severe acute respiratory syndrome. *N Engl J Med* 2003;348:1967-76. Published ahead of print on 10 April 2003 (www.nejm.org).

3 Department of Health, Government of Hong Kong Special Administrative Region. Atypical pneumonia. www.info.gov.hk/info/infection-c.htm (accessed 1 May 2003).

Imported cases of severe acute respiratory syndrome to Singapore had impact on national epidemic

EDITOR—Travel is responsible for the rapid intercontinental spread of the severe acute respiratory syndrome (SARS).¹ Singapore has one of the busiest airports in Asia, with numerous passengers arriving each day from countries affected by SARS, and it is